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U. S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL ADJUSTMENT ADMINISTRATION

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL ADJUSTMENT ADMINISTRATION

1938 AGRICULTURAL CONSERVATION PROGRAM

A Study of Factors Affecting Soil Management on the Farm

The tables attached hereto and the instructions which accompany them are for the purpose of securing accurate information relating to the physical characteristics of each farm in the county. This information is related to the soil management and cropping practices on the farm which are best calculated to conserve and improve the fertility of the soil.

In the column heads in Table I, the more significant characteristics of cropland are shown. Under each of these characteristics are listed five descriptive terms, a choice of which is to be used in describing the characteristics of the respective fields in the farm. Only those terms shown in Table I should be used in the execution of Table II.

It is quite likely that in some counties one or more of the five descriptive terms listed for each characteristic will not be applicable. For example, the prevailing soil types in a county all might be of such a nature that they are known to be more or less erodible, and in the case of the characteristic designated as Erodibility of Soil Type the descriptive term "None" might be applicable to none or to only a very few fields in the county. Before work is begun in a given county, instructions will be given to the committeemen who will execute Table II. Information will be given at that time as to whether certain descriptions under the several characteristics are not applicable in the county.

INSTRUCTIONS TO FARM REPORTERS

Table II is to be used by the community committeemen for the purpose of recording the terms descriptive of the various characteristics listed in Table I, which are applicable to the respective fields. In the execution of Table II, choose the descriptive term most applicable to the respective fields. Do not use any terms other than those shown in Table I.

At the top and bottom of Table II spaces are provided for entering certain information with regard to the farm covered by the report. This includes the State and county code, the 1937 work sheet number and aerial photo number for the farm, the minor civil division in which the farm is located, the names of the operator and owner of the farm, and the signature of the committeemen making out the report.

Column 1 - The spaces in column 1 will be used to designate the fields in the farm being surveyed. Use field letters corresponding to the letters used on Form NCR-113.

Column 2 - In this column, the acreage in the respective fields will be entered. This entry will be made in the county office except where Table II is being executed for farms not previously measured. In such latter instances, the estimated acreage of the respective fields will be entered at the farm.

I. Slope.

Column 3 - In column 3, enter after the respective field the descriptive terms listed under "Slope" in column 1 of Table I, which most nearly describes the slope in the respective field.

The term Slope as here used refers to the topography of the field as it relates to the probability of sheet and gully erosion due to rainfall.

- (a) "Level"--This term should be used if there is no visible deviation in the level of the field.
- (b) "Undulating"--This term should be used when the field is not perfectly level, but where slight deviation from level can be determined by the eye or where an otherwise flat field differs in the elevation of two sides.
- (c) "Gently Rolling"--Land showing a deviation in slope to the extent of slight rises and falls or showing an apparent difference in level between the two sides of the field may be described as gently rolling.
- (d) "Rolling"--This term should be used to describe fields characterized by distinct rises and falls, or which have a significant difference in the elevation of two sides.
- (e) "Hilly to Steep"--This term should be used to describe all fields which have slopes estimated to be in excess of ten degrees.

Column 4-5 - These columns will not be used by the farm reporter.



## II. Erodibility

Column 6 - In column 6, enter after the respective field the descriptive term listed under "Erodibility of Soil Type" in column 2 of Table I, which best represents the natural tendency of the prevailing soil type in the field to suffer erosion from wind or water.

By Erodibility of Soil Type is meant the susceptibility of the various soil types to erode because of wind or water. To properly evaluate this tendency on the various fields, it is necessary to have some knowledge of the prevailing soil type in the community and the relative tendency of these respective types to erode.

- (a) "None"--This term should be used only for those fields in which the prevailing soil type characteristically resists erosion.
- (b) "Slight"--This term should be used when the prevailing soil type in the field has only a slight tendency to erode. This term may be generally applied to the more erosion-resisting types.
- (c) "Moderate"--This term should be used where the prevailing soil type in the field has more than a slight tendency to erode.
- (d) "Heavy"--This term should be used when the prevailing soil type in the field significantly tends to erode.
- (e) "Serious"--This term should be used when the prevailing soil type in the field tends to erode badly.

Column 7-8--These columns will not be used by the farm reporter.

## III. Present Degree of Erosion

Column 9 - In column 9, enter after the respective field the descriptive term listed in column 3 of Table I which best indicates the present degree of erosion. The term used should describe the relative amount of top soil which has been removed by erosion.

This can be determined only approximately by comparing the depth of the present top soil with the depth of virgin top soil of the same soil type in which no erosion has occurred. Consideration should be given to evidences of erosion such as outcropping, subsoil, stoniness, color of surface soil, etc.

- (a) "None"--This term should be used where the present depth of the top soil is the same as that of virgin land. This term will seldom apply.
- (b) "Slight"--This term should be used when any of the top soil has been removed by either wind or water erosion.
- (c) "Moderate"--This term should be used where definite evidence of sheet erosion is apparent.
- (d) "Heavy"--This term should be used where any slight signs of rills or finger gullies are apparent.
- (e) "Serious"--This term should be used if gullies have formed on any significant portion of the area of the field.

Columns 10-11 - These columns will not be used by the farm reporter.

#### IV. Natural Soil Fertility

Column 12 - In column 12, enter after the respective field the descriptive term listed in column 4 of Table I under "Natural Soil Fertility", which most accurately describes the natural fertility of the soil.

Natural soil fertility is used to indicate the native ability of the soil to produce crops without the aid of additional fertilizing elements. The depth and quality of the subsoil is significant in this connection. The community committeemen are familiar with the natural fertility of the different soils as differentiated from the present fertility which depends to a considerable extent upon soil management in recent years.

- (a) "High"--This term should be used when the prevailing soil type in the respective field is high in natural fertility. This term may not be applicable to any field in a given county
- (b) "Good"--This term should be used for the respective field when the natural fertility of the prevailing soil type is better than the average for the United States, but cannot be classified as "high".

- (c) "Medium"--This term should be used for the respective fields in which the prevailing soil types are naturally medium or average, that is, equal to the average soil fertility of cropland in the United States.
- (d) "Fair"--This term should be used for the fields in which the prevailing soil types are naturally lower than the average fertility as compared with the United States.
- (e) "Poor"--This term should be used to describe fields in which the prevailing soil types are naturally so low as to produce only meager crops.

Columns 13-14 - These columns will not be used by the farm reporter.

#### V. Present Soil Productivity

Column 15 - In column 15, enter after the respective field the descriptive term listed in column 5 of Table I under Present Soil Productivity in Table I which most nearly describes the present productivity of the field.

Present soil productivity relates to the present ability of the soil in the respective field to produce cultivated crops and is dependent upon the state of fertility, present organic content, tilth, and freedom from noxious weed infestation.

- (a) "High"--This term should be used for fields capable of producing 40 bushels or more of corn per acre in a normal year.
- (b) "Good"--This term should be used to describe fields capable of producing 30 to 40 bushels of corn per acre in a normal year.
- (c) "Medium"--This term should be used to describe fields capable of producing 25 to 30 bushels of corn in a normal year.
- (d) "Fair"--This term should be used to describe fields capable of producing 20 to 25 bushels of corn per acre in a normal year.
- (e) "Poor"--This term should be used to describe fields capable of producing less than 20 bushels of corn per acre in a normal year.

Columns 16-17 - These columns will not be used by the farm reporter.



## VI. Adaptability to Cultivation

Column 18 - In column 18, enter/after the respective field the descriptive term listed in column 6 of Table I under Adaptability to Cultivation, which most nearly describes the adaptation of the respective fields to the production of cultivated crops.

Adaptability to cultivation may be considered to include any other significant characteristics which have to do with the determination of the adaptability of the soil in a given field to the production of other than sod crops. It may include lack of drainage, droughtiness, stoniness, etc. A given field may be unadapted to use for the production of cultivated crops if, because of its location, surface water from adjacent fields runs over it.

- (a) "High"--This term should be used to describe fields in which there are no deterring characteristics to the production of cultivated crops.
- (b) "Good"--This term should be used to describe fields well adapted to production of cultivated crops but possessing characteristics that tend to make constant cropping to intertilled crops less desirable.
- (c) "Medium"--This term may be used to describe fields that are average in their adaptation to the production of cultivated crops, but which fields have some characteristics which discourage constant cropping.
- (d) "Fair"--This term may be used to describe fields which may be reasonably well suited to the production of cultivated crops but are characterized by conditions which make cropping more difficult than on the average field.
- (e) "Poor"--This term may be used to describe fields not well adapted to the production of cultivated crops because of lack of needed drainage, droughtiness, stoniness, or for other reasons.

Columns 19-20 - These columns will not be used by the farm reporter.



TABLE I  
FACTORS AND TERMS USED IN FIELD REPORT

I Slope	II Erodibility of Soil Type	III Present De- gree of Erosion	IV Natural Soil Fertility	V Present Soil Produc- tivity	VI Adaptability to Cultivation	VII	VIII
1 Level	None	None	High	High	High		
2 Undulating	Slight	Slight	Good	Good	Good		
3 Gently rolling	Moderate	Moderate	Medium	Medium	Medium		
4 Rolling	Heavy	Heavy	Fair	Fair	Fair		
5 Hilly to Steep	Serious	Serious	Poor	Poor	Poor		



(Minor Civil Division)

TABLE II

(State and County Code)

FIELD REPORT

(1937 Worksheet No. - Aerial Photo No.)

I Slope			II Erodibility of Soil Type			III Present Degree of Erosion			IV Natural Soil Fertility			V Present Soil Productivity			VI Adaptability to Tilled Crops			VII			VIII					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
Field: Acres: Class:			Class			Class			Class			Class			Class			Class			Class					
A																										
B																										
C																										
D																										
E																										
F																										
G																										
H																										
I																										
J																										
K																										
L																										
TOTAL:		XXXX	X		XXXX	X		XXXX	X		XXXX	X		XXXX	X		XXXX	X		XXXX	X					

Operator:

Owner :

Signature of Committeeman

